

# Vigil<sup>®</sup> I & II Download Software 2.14 -User's Manual

US Version 1.5 (2012)



The Vigil is endorsed by:

# BUnited Parachute











Sky Dive

Thomas Sports









NGENIERIA DE SISTEMAS











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## 1. Introduction

Thank you for your purchase of the I.R. Download Box and the Vigil<sup>®</sup> Download Software 2.11, an accessory created by **A.A.D.** n.v./s.a.

The Vigil® is the only AAD on the market that has a readable data recorder function (black box), which is accessible to its user. The unit memorizes the last 16 minutes of freefall time (with a maximum of 16 graphs, whichever is reached first), the total time in freefall and the total number of jumps.

This accessory allows, for the first time in the history of AAD's, the download of the jump information to the computer by the user.

A new Vigil setting can be transferred from the PC to the unit (see § C-4).

The I.R. Download Box of your "Guardian Angel" is easy to install on all computers on the market (with Windows 7, Vista, XP, 98, 2000, ... as well as with MAC OS10 with Virtual Machine) thanks to the drivers recorded on the installation CD. The I.R. Download Box is connected to the computer via a standard USB connection.



## **REMEMBER:**

The Vigil® is a safety device and is not to be used as a data logger.



## 2. INSTALLATION ON THE PC

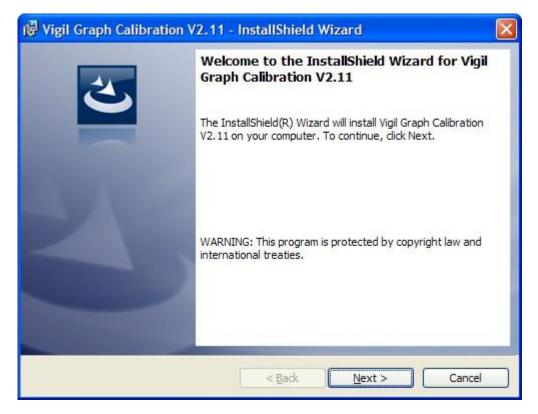
## A. <u>SOFTWARE</u>

The Vigil® Download Software 2.11 can be installed on all computers that use Windows 7, Vista, XP, 98, 2000, Millennium or MAC OS10 VIRTUAL MACHINE.

- 1. Insert the CD into the appropriate drive.
- 2. The CD automatically starts.

Note: If the CD does **not** start automatically, click on the Windows icon named **"My Computer"**. The window shows the drives available on your computer. Double-click the icon for your CD-ROM drive to see the list of files on the CD. Double-click the file named 'setup.exe'. The CD starts.

The Setup of the installation is starting.

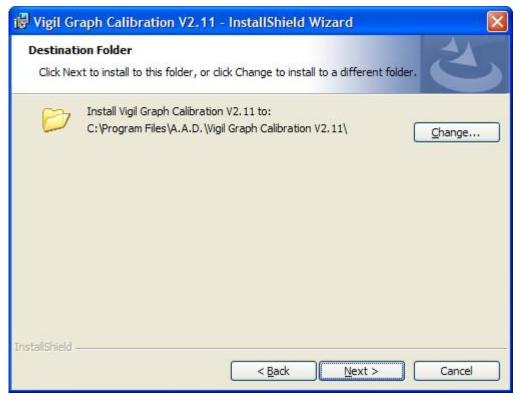


3. Click "Next"



| 🗒 Vigil Graph Calibration V2.11 - InstallShield Wizard   |                                  |
|--|----------------------------------|
| License Agreement Please read the following license agreement carefully.   | と                                |
| END-USER LICENSE AGREEMENT FOR VIGIL® DOW<br>SOFTWARE  | /NLOAD                           |
| IMPORTANT-READ CAREFULLY: This End User Licens<br>("EULA") is a legal agreement between you (either an individu<br>a single legal entity) and the manufacturer ("Manufacturer") of<br>Download system with which you acquired the that accompar<br>EULA ("Software"). The Software includes Vigil® Software. | al person or<br>the<br>nies this |
| <ul> <li>○ I accept the terms in the license agreement</li> <li>● I do not accept the terms in the license agreement</li> </ul>  | Print                            |
| InstallShield  | Cancel                           |

4. Select "I accept the terms in the license agreement" and click "Next" to continue.



5. Click "Next"



| 🕏 Vigil Graph Calibration V2.11 - InstallShield Wizard 🛛 🛛 🔀   |
|--|
| Setup Type<br>Choose the setup type that best suits your needs.  |
| Please select a setup type.  |
| All program features will be installed. (Requires the most disk space.)  |
| Choose which program features you want installed and where they will be installed. Recommended for advanced users. |
| InstallShield  |

6. Click "Next"

| Vigil Graph Calibration V2.11 - InstallShield Wiza<br>Ready to Install the Program  | ird                              |
|---|----------------------------------|
| The wizard is ready to begin installation.  |                                  |
| Click Install to begin the installation.  |                                  |
| If you want to review or change any of your installation settin<br>exit the wizard. | igs, click Back. Click Cancel to |
|   |                                  |
|   |                                  |
|   |                                  |
|   |                                  |
|   |                                  |
|   |                                  |
| tallShield  |                                  |
| < <u>B</u> ack  | Install Cancel                   |

7. Click "Install" and wait until the installation is completed.



| Vigil Graph V1.39 - InstallShield Wizard |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
|  | InstallShield Wizard Complete<br>The InstallShield Wizard has successfully installed Vigil Graph<br>V1.39. Click Finish to exit the wizard. |  |  |  |  |  |
| < <u>B</u> ack Finish Cancel             |   |  |  |  |  |  |

8. Click "Finish" to complete the Setup.

### Β. USB I.R. BOX

1

Start CDM.exe to install the USB drivers for the IR box. .....

| All <u>P</u> rog | ams 🜔 | a.a.d | • | 👼 Vigil Graph V1.39 🕨 🛑 Launch CDM.exe |
|------------------|-------|-------|---|--|
|                  |       | 1     |   | 🖉 🞯 Launch Vigil.exe                   |
|                  |       |       |   |  |
| 🐉 start          |       |       |   |  |

Plug the Vigil Download Box in an USB Connection.

Your computer will detect automatically the new hardware and will find the drivers.

This message appears in the Windows task bar telling you that the Setup of the new hardware has been completed with success.



Launch the Vigil Download Software.



## 3. HOW TO DOWNLOAD?

## A. <u>SET UP:</u>

Launch the Vigil Download Software

- 1. Create a new folder on your hard disk
- 2. Allocate as new target this folder

| <b>()</b> | VIGIL V   | /1.39       |        |    |
|-----------|-----------|-------------|--------|----|
| File      | Extra     | Settings    | Window | He |
| 2         | Open      |             | Ctrl+O |    |
|           | Change S  | Save Direc  | tory   |    |
| 8         | Print Cha | art         | Ctrl+P |    |
| 8         | Print And | Close All ( | Charts |    |
| D.        | Print Pre | view        |        |    |
| Đ,        | Close     |             |        |    |
|           | Close All |             |        | _  |
| <u>n</u>  | Exit      |             |        |    |

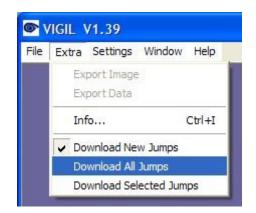
Double-click on the correspondent target folder

OK

-

Cancel

- 3. Choose the option of download in the menu "Extra":
  - New : To download all new jumps.
  - All : To download all jumps in memory.
  - Selected : To download jumps you want to select.





4. Place the Controller Unit inside the I.R. Download Box (place the plexi screen of the Controller Unit in front of the marked arrow).

Do not remove the Controller Unit from the I.R. Download Box during process.





Vigil I

Vigil II (+ (\*) see remark 1 below)

## B. DOWNLOAD ACTION

1. Push the button of the Controller Unit for 2 seconds. On the bottom of the Software the "Download Bar" shows you the process of the downloading, and the Red Led of the Controller Unit is flashing.

## (\*) Remark 1:

For Vigil II models: if the download does not work, lift the controller  $\pm$  3mm from the bottom and push the button again. If it still doesn't work, close the software and restart the procedure.

## Remark 2:

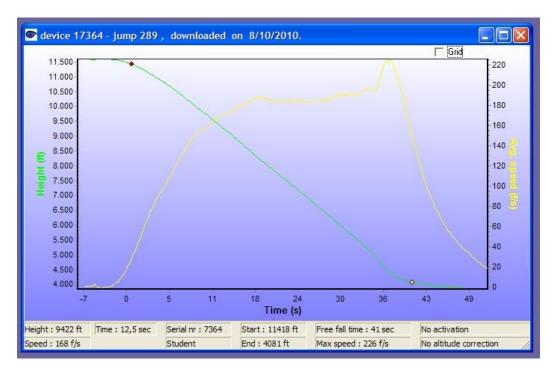
In case you have chosen "Download Selected Jumps", an intermediate window will appear (see drawing below).

| Jumps in device | e #18609 💶 🗖 🔀 |
|-----------------|----------------|
| 🔽 Jump 1        | 🗖 Jump -7      |
| Jump 2          | Ump -6         |
| 🗖 Jump -13      | 🗖 Jump -5      |
| Ump -12         | 🗖 Jump -4      |
| 🗖 Jump -11      | 🗖 Jump -3      |
| 🖵 Jump -10      | 🖵 Jump -2      |
| 厂 Jump -9       | 🖵 Jump -1      |
| 厂 Jump -8       | 厂 Jump 0       |
| Cancel          | Download       |

When the download is finished, all graphs will appear on screen.



## C. <u>HOW TO READ THE GRAPH?</u>



- The GREEN line is the altitude in meters or feet.
- The GREEN horizontal line is the preset activation altitude linked to the choosen mode.
- The RED line is the speed used by Vigil in km/h, mph, m/s or ft/s.
- The RED horizontal line is the preset activation speed linked to the choosen mode.
- The YELLOW line is the filtered speed, just to give the average falling speed during the freefall as info.
- The RED dot: detection of the freefall (min. 5/8 sec above activation speed).
- The YELLOW dot: detection end of the freefall (min. 5/8 sec under activation speed).
- The BLUE dot: activation of the Vigil.

## - The Vigil starts to record grafically in memory 7 sec before start of freefall and stops 12 sec after end of freefall.

The extra red line in the graph (vertical speed used by the Vigil) can only be obtained if the saved file (.vgl) (for example, filename: "device 17364 - Jump 289") is sent by e-mail to A.A.D. nv/sa Brussels, to one of the following e-mail addresses: - edwin@vigil.aero

- info@vigil.aero
- info@vigil-aad.com

In return and on request, you will be able to receive a ".jpeg" or ".bmp" file which shows this extra speed line.

For further information, see examples on page 12.

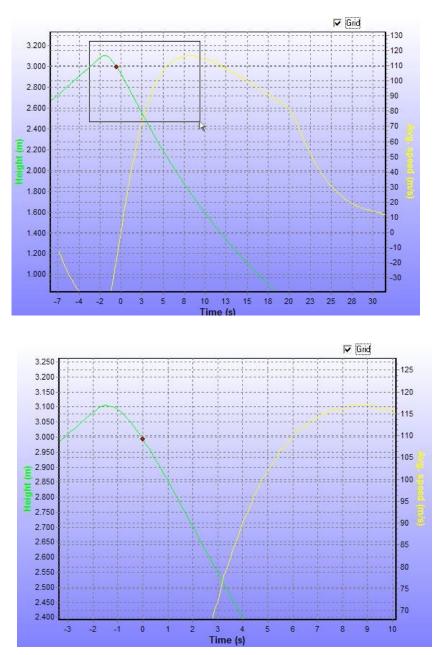
Remark:

You can choose your own colours for the graph in the menu "Settings", "Screen colours".



With the mouse wheel, you can scroll up and down in the screen. The "grid" selection in combination with zooming in gives you the possibility to view the grid in detail.

By holding down the left mouse button and moving the cursor right and down, you can define the zooming area.



To zoom back out, you hold down the left mouse button and move the cursor left and up.



## **EXAMPLES OF ACTIVATION GRAPHS:**

VIGIL II #11340: This graph shows a real Life Save, because the jumper didn't pull the main canopy during freefall. ٠



<u>VIGIL II #10849:</u> This graphs shows another type of Life Save, where the Vigil® activated after the jumper did a Low Cutaway.



•

<u>VIGIL II #18437:</u> This graph shows an activation due to the low pull of the main canopy.





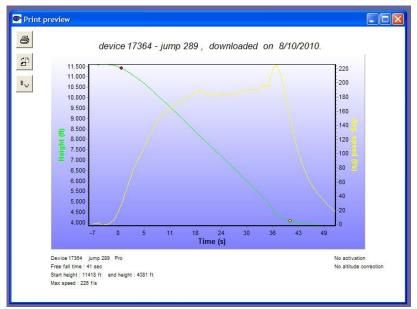
## D. <u>EXTRA FEATURES</u>

## 1. <u>How to print a graph?</u>

Open the graph(s) you want to print.

Select "Print" or "Print and close all charts".

It's possible to specify the printer, to choose between landscape or portrait and to select colour or black/white.



2. How to export a graph?

Open the graph(s) to be exported, and then click on the menu "Extra".

Choose between:

- a) Export data (.xls)
- b) Export image (.jpg or .bmp)
- 3. <u>How to send files by e-mail?</u>

See §3A to see where the file has been saved on your computer. You just need to attach the corresponding ".vgl" file(s). Please do not send the ".jpg", ".xls" or ".bmp" files. For example, filename: 'device 17364 - jump 289'.



### Ε. OPTIONS SPECIFICALLY FOR THE CIVIL VIGIL®

## 4. How to check the info?

- Click on the menu "Extra" Then click "Info"
- Push the button of the Controller Unit for 2 seconds

| INFO on #00382                                |                         |
|---|-------------------------|
| Last jump freefall time: <b>39 s</b>          | Total jumps : <b>50</b> |
| Total freefall time : 0 h 30 m 23 s           |                         |
| Max speed of last freefall : 238,0 kn         | n/h                     |
| Total registered cutter activations : ${f 0}$ |                         |
|   |                         |

- 5. How to check and modify the settings?
  - Click on the menu "Settings" .
  - Then click on "Logger settings"
  - Push the button of the Controller Unit during 2 seconds. •

## Remark:

The software is calculating the parameters of the Vigil during a few moments. After that, the modifications of the Vigil settings can be done.

| Settings  |                               |      |                   |
|---|-------------------------------|------|-------------------|
| VIGIL parameters<br>SETUP<br>User<br><b>Pro</b>                               | Altitude correction : 0 + met |      |                   |
| Altitude correction : 0 meter   | CONFIG<br>Altitude            | View | ☐ Multiple Vigils |
| CONFIG<br>Altitude : Meter View : Right<br>Units : Metric Logging : Free fall | Units<br>© metric<br>C u.s.   |      | <u>W</u> rite     |
|   | 21,5 ℃ 1007,8 hPa             |      |                   |

The window is split in 2 parts:

- On the left side, you see the current parameters of your Vigil. This section is 'read only'.
- On the right you can configure the new settings. Push the 'Write' button to send the changes to the Vigil.

If you want to configure multiple Vigils, click the 'Multiple Vigil' selection. Now you see the 'Read' button, for reading the settings of the next Vigil unit.



| Settings  |  |                       |  |
|---|--|-----------------------|--|
| VIGIL parameters<br>SETUP<br>User<br>Student<br>Altitude correction : 100 meter | SETUP<br>User<br>C pro<br>Student<br>Candem<br>CONFIG<br>Altitude<br>C meter<br>C feet | Altitude correction : | 200 • meter<br>Read<br>Multiple Vigils |
| CONFIG<br>Altitude : Meter View : Right<br>Units : Metric Logging : Free fall   | Units  |                       |  |

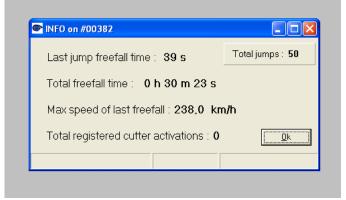
| Confirm  | ation                            |                             | ×           |
|----------|----------------------------------|-----------------------------|-------------|
| <u>.</u> | This will change your Vigil sett | ings! Do you want to save t | he changes? |
|          | <u>Y</u> es                      | No                          |             |



## F. OPTIONS SPECIFICALLY FOR THE MILITARY VIGIL®

## 4. How to check the info?

- Click on the menu "Extra"
- Then click "Info"
- Push the button of the Controller Unit for 2 seconds



- 5. <u>How to check and modify the settings?</u>
  - Click on the menu "Settings"
  - Then click on "Logger settings"
  - Push the button of the Controller unit during 2 seconds.

### <u>Remark:</u>

The software is calculating the parameters of the Vigil during a few moments. After that, the modifications of the Vigil settings can be done.

| Settings  |   |  |  |
|---|---|--|--|
| VGIL parameters<br>SETUP<br>Type User<br>○ ONH Pro<br>○ standard              | SETUP<br>Type<br>CONH<br>C time<br>C standard<br>Standard<br>Setup<br>Elevation: 0<br>Meter<br>C NH<br>C time<br>C tandem<br>C NH<br>C tandem<br>C t  |  |  |
| Elevation : -200 meter<br>QNH : 1010 hPa                                      | CONFIG<br>Altitude<br>Cometer<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Coneter<br>Conete |  |  |
| CONFIG<br>Altitude : Meter View : Right<br>Units : Metric Logging : Free fall | Units<br>C metric<br>C u.s.   |  |  |
| CALIBRATION<br>Pressure Offset :<br>-0,6 hPa                                  | CALIBRATION<br>Pressure: 1000,0 hPa <u>Calibrate</u>  |  |  |

The window is split in 2 parts:

- On the left side, you see the current parameters of your Vigil. This section is 'read only'.
- On the right you can configure the new settings. Push the 'Write' button to send the changes to the Vigil.

If you want to configure multiple Vigils, click the 'Multiple Vigil' selection. Now you see the 'Read' button, for reading the settings of the next Vigil unit.



| IGIL parameters<br>SETUP<br>Type<br>ONH<br>C time<br><b>Pro</b>               | SETUP<br>Type<br>C QNH<br>C time<br>C bunc             | Altitude correction : 0 + mete |  |
|---|--|--------------------------------|--|
| C time PTO<br>C standard  | • standard C tand                                      | em                             |  |
| Elevation : -200 meter<br>QNH : 1010 hPa                                      | CONFIG<br>Altitude<br>meter<br>feet                    | View                           |  |
| CONFIG<br>Altitude : Meter View : Right<br>Units : Metric Logging : Free fall | Units<br>retric<br>C u.s.                              | <u>Write</u>                   |  |
| CALIBRATION<br>Pressure Offset :<br>-0.6 hPa                                  | CALIBRATION<br>Pressure : 1000,0 hPa <u>C</u> alibrate |                                |  |

6. <u>How to calibrate?</u>

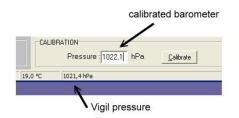
Fill in the "pressure" field with the given value from a <u>calibrated</u> barometer.

A.A.D. nv/sa recommends that the local atmospheric pressure is checked and compared to the pressure indicated by the Vigil $\mbox{@}$  regularly.

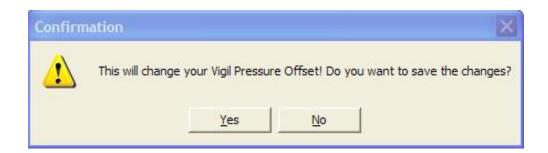
If a difference of more than **5 hPa** is noticed, then a new calibration should be performed by a Vigil® qualified expert via the I.R. download box (and software).

If the difference is more than 10 hPa, the Vigil® needs to be re-calibrated.

In that case, the Vigil® must be returned to an official certified dealer or to the factory for inspection and re-calibration.



Push the button 'Calibrate' and the pressure offset will be recalculated and set in the Vigil. You can always verify by going back in the menu and click "Settings". The Vigil® will show the measured temperature and pressure values again.







The Vigil® Bidirectional Download Tool has been designed to satisfy your expectations.

If you have any problems or questions, please do not hesitate to contact us:

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